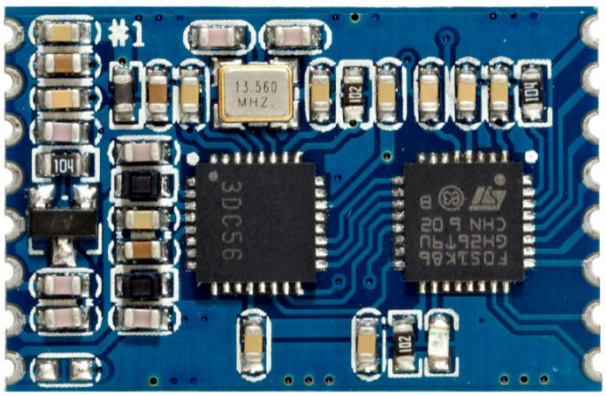
MIFARE® DESFire Read/Write Core Module

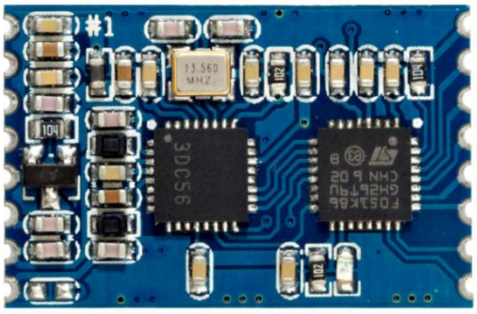
MIFARE®Desfire, MIFARE®Plus, Ultralight C, ISO14443A/B,ISO15693, etc



Key Features:

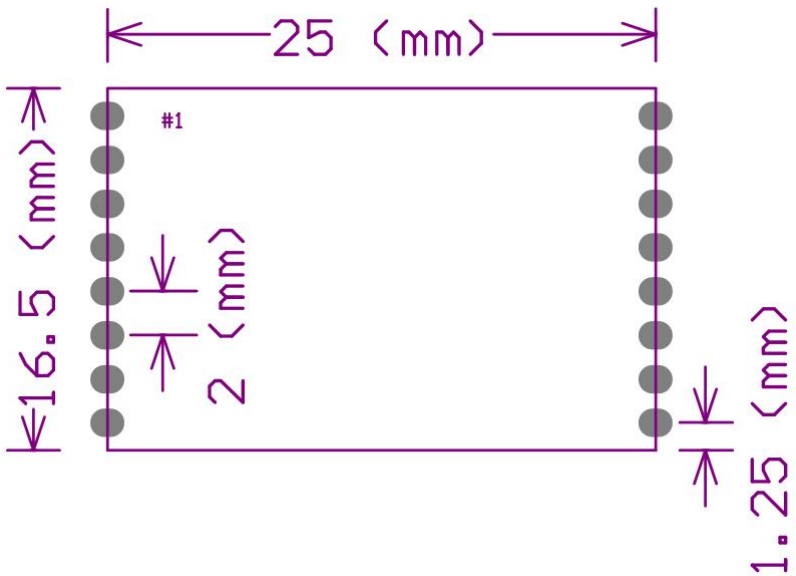
- 3.3V ~5V power supply, UART-TTL interface;
- Tiny size, single-face laying components with stamp-hole
- Compliant with ISO14443A/B, ISO15693, ISO18092，Felica Standard
- Option version of ISO7816 T=1 standard;
- Read/Write or Read UID only working mode
- Support MIFARE® DESFire standard Data file, Back-up Data file, Value file, Linear Record file, Cyclic Record file and Transaction MAC file creating, etc;
- Support KEY Authenticate,get KEY Version, change KEY, etc;
- Support DES/3DES/AES/MAC encryption algorithm;
- Available to operate MIFARE® DESFire PICC level, Application ID create/delete/format, etc
- External LED and BUZ available (external driver circuit needed)

PIN Definition:



PIN	Signal	I/O Type	Description
PIN1	GND	PWR	GND
PIN2	RST	Input	Low Power Reset, active level for the RST is low (shortened to GND), normal status (operating) is open (not connected) or pull up with 10 k Ω resistor.
PIN3	+3.3V/VCC	PWR	DC 3.3V
PIN4	+5V/TVDD	PWR	Power for RF, DC 3.3V better
PIN5	TVSS	PWR	Antenna GND
PIN6	RFRX	Input	Leave open
PIN7	RFTX1	Output	Antenna output
PIN8	RFTX2	Output	Antenna output
PIN9	IO6	Output	GPIO
PIN10	IO5	Output	GPIO
PIN11	IO4	Output	GPIO
PIN12	IO3	Output	GPIO
PIN13	IO2	Output	GPIO
PIN14	IO1	Output	Buzzer & LED
PIN15	TXD	Output	UART TX(TTL Level)
PIN16	RXD	Input	UART RX(TTL Level)

Dimension:



Technical Parameters:

Electrical Specification	
Power supply	DC 3.3V ~ 5V
Power consumption	Max current：<50mA,　Standby current: <1 mA
Operation frequency	13.56MHz
Baudrate	9600~115200 bit/s (default 115200bps)
Interface	UART TTL
Antenna	External, stamp hole
Reading range	Up to 4 cm ~ 10 cm(depends on antenna and cards)

Mechanical Specifications	
Dimension	25mmx16.5mmx2.8mm (LxWxH)
Weight	3g
Material	FR-4, Blue
Model	CHK301MT

Environmental Conditions	
Operation temperature	-20°C～ +80°C
Storage temperature	-40°C～ +85°C
Humidity	Relative humidity 5%～95%

Supported Standard/ Tags	
ISO14443 A	Read/write: MIFARE® Classic 1K /4K, MIFARE Ultralight®, MIFARE Ultralight® C, MIFARE® DESFire®EV1, MIFARE® Smart MX, MIFARE® Plus S / X, MIFARE® Pro X, NTAG 21x,Felica Read UID only: Read UID only of all other ISO14443A RFID tags
ISO14443 B	SRI4K, SRIX4K,SRI512, AT88RF020, 66CL160S, SR176
ISO15693	EM4135, EM4043, EM4x33, EM4x35, I-Code SLI / SLIX, M24LR16/64, TI Tag-it HF-I, SRF55Vxx (my-d vicinity)

SDK information	
Demo software	WINDOWS,　C# language
Files	Comprotocol document API document User Manual Demo.exe

Note:　Other functions and details to be continued and upgrade